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Access DB# 56748

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: R Gitomer Examiner #: 64630 Date: 12/17/01
Art Unit: 1623 Phone Number 30 8-0732 Serial Number: 09/831,613
Mail Box and Bldg/Room Location: 8B19 7A41 Results Format Preferred (circle): PAPER DISK E-MAIL

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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): _____

_____

Earliest Priority Filing Date: _____

For Sequence Searches Only *Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

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AA Sequence (#) _____
Structure (#) _____
Bibliographic ✓
Litigation _____
Fulltext _____
Patent Family _____
Other _____

Vendors and cost where applicable

STN ✓
Dialog _____
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Other (specify) _____

PTO-1590 (8-01)

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FILE LAST UPDATED: 20 DEC 2001              <20011220/UP>
MOST RECENT DERWENT UPDATE          200175   <200175/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

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L41  ANSWER 1 OF 14  WPIX   COPYRIGHT 2001   DERWENT INFORMATION LTD
AN   2001-389801 [41]   WPIX
CR   2001-335870 [34]
DNN  N2001-286765
TI   Electric coil for generating scalar fields has
     coil former wound with at least 2 relatively offset conductor
     wires.
DC   V02
IN   PETERS, O
PA   (PETE-I) PETERS O; (REIC-I) REICHWEIN D
CYC  86
PI   WO 2001035425 A1 20010517 (200141)* DE   21p    H01F005-00
        RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
            NL OA PT SD SE SL SZ TR TZ UG ZW
         W: AE AG AL AU BA BB BG BR BZ CA CN CR CU CZ DM DZ EE GD GE HR HU ID
            IL IN IS JP KP KR LC LK LR LT LV MA MD MG MK MN MX MZ NO NZ PL RO
            SG SI SK SL TR TT TZ UA US UZ VN YU ZA
     AU 2001013909 A  20010606 (200152)              H01F005-00
ADT  WO 2001035425 A1 WO 2000-EP10781 20001102; AU 2001013909 A AU 2001-13909
     20001102
FDT  AU 2001013909 A Based on WO 200135425
PRAI DE 2000-10005917 20000210; DE 1999-19954367 19991111
IC   ICM  H01F005-00
AB   WO 200135425 A UPAB: 20010914
     NOVELTY - The coil has a coil former (2) wound with at least 2 different
     conductor wires (3,4), which are connected together at their ends, with
     the windings of the respective conductors wires offset from one another
     along the periphery of the coil former. After one revolution around the
     coil former, each conductor wire has a deflection point (5) at which it
     crosses under itself and passes over the other conductor wires, before
     winding around the coil former in parallel with the latter. The windings
     of the different conductor wires alternate in a defined order along the
     axial direction of the coil former.
          USE - The electric coil is used for providing scalar
     fields.
          ADVANTAGE - The coil can produce a magnetic tri-pole upon
     application of an electric current.
          DESCRIPTION OF DRAWING(S) - The figure shows a schematic
     representation of a winding mode for an electric coil.
     Coil former 2
          Conductor wires 3,4
          Conductor wire deflection points 5
     Dwg.3B/3
FS   EPI
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FA AB; GI
MC EPI: V02-D

L41 ANSWER 2 OF 14 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 2001-367650 [38] WPIX
DNC C2001-112813
TI Conditioning of piped drinking water comprises exposing to magnetic field generated by surrounding Klein **coil** to modify water polymer cluster structure.
DC D15 J01
IN **PETERS, O; REICHWEIN, D**
PA (PETE-I) PETERS O; (REIC-I) REICHWEIN D
CYC 94
PI WO 2001038226 A2 20010531 (200138)* DE 25p C02F001-00
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
DE 10005907 A1 20010613 (200141) B01J019-08
AU 2001028262 A 20010604 (200153) C02F001-00
ADT WO 2001038226 A2 WO 2000-DE4132 20001122; DE 10005907 A1 DE 2000-10005907 20000210; AU 2001028262 A AU 2001-28262 20001122
FDT AU 2001028262 A Based on WO 200138226
PRAI DE 2000-10005907 20000210; DE 1999-19956257 19991123
IC ICM B01J019-08; C02F001-00
ICS B01J019-00; H01F013-00
AB WO 200138226 A UPAB: 20010711
NOVELTY - A fluid, e.g. water, passes through a pipe (3) which is surrounded by one or more Klein double field coils (2a-c).

DETAILED DESCRIPTION - A fluid, e.g. water, passes through a pipe (3) which is surrounded by one or more Klein double field coils (2a-c). The water passes through the pipe at a controlled speed where the Klein coil generates mono-polar and quasi-single pole magnetic fields which affect the water structure especially the polymer cluster structure. The Klein coil creates a 'Klein Bottle' field. The Klein coils are connected to an electrical source of supply. The water pipe has a series internal conical disc vortex generators which initiate vortices prior to exposure to the first Klein coil. Each conical disc discharges through a large outlet to smaller inlet of the adjacent disc. The passage through the discs may also be packed with glass beads.

USE - Conditioning water for high quality purposes, especially drinking, and for the treatment of process water, effluent water, surface water, sub-soil water, and technical fluids such as fuel and coolants.

ADVANTAGE - In the drinks industry the process provides water with similar properties to spring water. When used to treat coolant, the coolant removes unwanted deposits. When used to treat fuel, the treated fuel is better atomized, more efficient in use, and incombustible residues are minimized.

Dwg.0/8
FS CPI
FA AB
MC CPI: D04-A01Q; J01-F02E

L41 ANSWER 3 OF 14 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 2001-335870 [35] WPIX
CR 2001-389801 [34]
DNC C2001-103781
TI New **device** for detecting **biological** information in cells and organisms, useful for controlling **biological** systems, and correcting injurious cellular conditions, comprises **sensor** for **longitudinal waves**.
DC **B04 D16**
IN **PETERS, O; REICHWEIN, D**
PA (PETE-I) PETERS O; (REIC-I) REICHWEIN D

CYC 86
PI WO 2001034096 A1 20010517 (200135)* DE 42p A61K001-32 <--
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AU BA BB BG BR BZ CA CN CR CU CZ DM DZ EE GD GE HR HU ID IL IN IS JP KP KR LC LK LR LT LV MA MD MG MK MN MX MZ NO NZ PL RO SG SI SK SL TR TT TZ UA US UZ VN YU ZA
DE 10005906 A1 20010607 (200140) G01N027-72 <--
DE 10005917 C1 20010823 (200148) H01F027-28 <--
AU 2001010255 A 20010606 (200152) A61K001-32 <--
ADT WO 2001034096 A1 WO 2000-EP10145 20001016; DE 10005906 A1 DE 2000-10005906 20000210; DE 10005917 C1 DE 2000-10005917 20000210; AU 2001010255 A AU 2001-10255 20001016
FDT AU 2001010255 A Based on WO 200134096
PRAI DE 2000-10005906 20000210; DE 1999-19954367 19991111
IC ICM **A61K001-32; G01N027-72; H01F027-28**
ICS **C12Q001-02; G01N033-483; H01F005-00**
AB WO 200134096 A UPAB: 20010914
NOVELTY - A **device** (D1) for detecting biological information in cells or organisms comprising a **sensor** for **longitudinal waves** (LW) that generates a data signal for such **waves**, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a **device** (D2) for controlling biological systems that generates **scalar magnetic** fields in accordance with a data signal;

(2) determining biological information using D1; and

(3) controlling biological systems using D2.

ACTIVITY - None given.

MECHANISM OF ACTION - Correcting abnormalities in the cellular **electromagnetic** system.

USE - The **devices** are used:

(1) to affect biological processes;

(2) to eliminate or change injurious cellular states;

(3) for reduplication of cells and organisms; and

(4) for manipulation of genetic material of an organism.

Typical applications are elimination of unwanted mutations in cloning processes, in seed development and production, and for study/development of new pharmaceuticals, especially using histological samples as replacement for test animals.

Dwg.0/8
FS CPI
FA AB; DCN
MC CPI: **B04-F01**; B04-P01; **B11-C08B**; **B11-C08E**; **B11-C09**; **B12-K04A**; **D05-H09**
TECH UPTX: 20010625

TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred **Device** : In D1, the **sensor** comprises a conductor (preferably of **ferromagnetic** material and optionally coated with gold) connected to a p-n junction, specifically a **Zener diode**. D1 may include:

(1) a **sensor** for **electromagnetic lateral waves** (LaW) which generates a data signal from such **waves**, particularly a **coil**;

(2) an integrator for producing an integrated signal from LW and LaW data signals;

(3) a **decoder**, particularly a microprocessor, for processing the (integrated) data signals;

(4) a **device** for generating a corrected signal from the **decoded** signal; and

(5) a display system for the various signals.

D2 particularly comprises D1 and a feed-back system for returning a displayed signal to the **device** that generates the **scalar** fields (particularly an **electromagnetic wave** emitter, most particularly a cylindrical multiple **Klein coil**

(MKC)). MKC comprises **coils** of at least two electrical conductors, around the circumference of the **coil** core. Each **coil**, after about one turn, forms a turning point, so that, in the axial direction of the core, they alternate with each other at a predetermined spacing. The two **coils** are electrically connected at one end and, in the axial direction of the **coil**, the direction of the **coil** is reversed at least once, especially at the turning positions. These points are displaced by about 180 degrees, for the two **coils**, and they form a straight line, in the axial direction, or a zig-zag or V-shaped pattern.

L41 ANSWER 4 OF 14 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 2001-235193 [24] WPIX
CR 2001-258043 [24]
DNC C2001-070539
TI Device for lysing cells comprises a **coil**, which exerts alternating **magnetic** fields on samples.
DC **B04 D16**
IN FREDRIKSSON, S; KRIZ, D
PA (GENO-N) GENOVIS AB
CYC 94
PI WO 2001018168 A1 20010315 (200124)* EN 22p C12M001-42
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
SE 9903187 A 20010309 (200131) C12M001-42
AU 2000074667 A 20010410 (200137) C12M001-42
ADT WO 2001018168 A1 WO 2000-SE1743 20000907; SE 9903187 A SE 1999-3187 19990908; AU 2000074667 A AU 2000-74667 20000907
FDT AU 2000074667 A Based on WO 200118168
PRAI SE 1999-3187 19990908; SE 1999-3183 19990908; SE 1999-3185 19990908
IC ICM C12M001-42
ICS C12N013-00
AB WO 200118168 A UPAB: 20010704
NOVELTY - A device comprising at least one **coil** in which a **magnetic** field can be generated for introduction or extraction of **bio-particles** from biological membrane-enveloped structures in a sample introduced into the device.
DETAILED DESCRIPTION - A device comprising at least one **coil**, in which a **magnetic** alternating field can be generated into which a sample can be inserted where the **magnetic** field causes an increase of the thermal and/or kinetic energy of **magnetically** susceptible particles in the sample. The increased thermal and/or kinetic energy of the particles causes the formation of pores in biological membrane-enveloped structures found in the sample. The pores allow introduction or extraction of **bio-particles** into or from the biological membrane-enveloped structures.
USE - The device is used to lyse cells and to modify the genetic code and/or metabolism of cells (all claimed). It can be used to introduce exogenous materials, e.g. proteins, viruses and fatty acids into cells. It is also used to identify and isolate specific components of cells, e.g. in cell studies to examine the effect of viruses on cells. The device can be used for transformation methods and also for purification of specific cell components.
ADVANTAGE - The process can replace cell bombardment.
Dwg.0/5
FS CPI
FA AB
MC CPI: B11-C08D; B11-C09; B12-K04A; D05-H09; D05-H18
TECH UPTX: 20010502
TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Materials: The alternating field direction has a frequency in the range 1-5 MHz and a field strength

of at least 1 mT. The **magnetic** field is non-homogeneous and has an alternating gradient field direction, the direction of the alternating gradient field is generated by two **coils**. The sample is inserted between the **coils**. The frequency of the alternating current and the strength are accurately set. The biological membrane-enveloped structures consist of body tissue, cells, bacteria, virus particles, organelles at a subcellular level, liposomes or proteins.

L41 ANSWER 5 OF 14 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 2001-191503 [19] WPIX
DNN N2001-136086 DNC C2001-057392
TI Separation of dispersed magnetic nano- or microparticles from fluids for e.g. analytic or diagnostic applications, takes place in non-uniform, alternating magnetic field.
DC B04 D16 J04 P31 P41
IN KOETITZ, R; MATZ, H; RHEINLAENDER, T; WEITSCHIES, W
PA (DIAG-N) INST DIAGNOSTIKFORSCHUNG GMBH
CYC 82
PI WO 2001010558 A1 20010215 (200119)* DE 34p B03C001-23
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AU BA BB BG BR BZ CA CN CR CU CZ DM DZ EE GD GE GH GM HR HU ID IL IS JP KE KP KR LC LK LR LS LT LV MA MG MK MN MW MX MZ NO PL RO SD SG SI SK SL TT TZ UA UG US UZ VN YU ZA ZW
DE 19938372 A1 20010308 (200121) B03C001-23
AU 2000066999 A 20010305 (200130) B03C001-23
ADT WO 2001010558 A1 WO 2000-EP7645 20000807; DE 19938372 A1 DE 1999-19938372 19990809; AU 2000066999 A AU 2000-66999 20000807
FDT AU 2000066999 A Based on WO 200110558
PRAI DE 1999-19938372 19990809
IC ICM B03C001-23
ICS A61B005-05; B01D035-06; B03C001-025; B03C001-033; B03C001-30; **H01F001-28; H01F001-44**
AB WO 200110558 A UPAB: 20010405
NOVELTY - Separating dispersed magnetic micro- or nano- particles, comprising subjecting them to a non-uniform, alternating magnetic field, is new. The particles experiencing force in the direction of higher field strength, are separated from those not experiencing sufficient force.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:
(1) a magnetic substance isolated by the novel method; and
(2) apparatus for performing the novel method, comprising equipment producing the field, with a separator operating continuously or intermittently.
USE - For analysis or diagnosis of fluids, and for separating particles for use in pharmaceutical preparations (claimed).
ADVANTAGE - This process recovers the finest particles continuously or intermittently. A high yield, without alteration of the particles, is secured. Magnetic remnance in the separator is reduced. Particle agglomeration caused by the magnetic field is minimized.
DESCRIPTION OF DRAWING(S) - The drawing shows a schematic diagram of a device for separating dispersed microparticles from fluids.
Separation column 1
Coil 2
Clamp 3
Iron core 4.
Dwg.1/3
FS CPI GMPI
FA AB; GI; DCN
MC CPI: B04-B01B; **B04-B03B**; B04-C03; B04-D01; B04-E01; B04-K01; B04-L01; B04-N04; B04-N05; B05-A03A; B05-A03B; B05-B02C; B05-C06; B10-B02; **B11-C08D**; **B12-K04**; **D05-H09**; D05-H13; J04-B01
TECH UPTX: 20010405
TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Materials: The particles are of metals from the iron group, iron oxide, ferrite, chromium

dioxide or iron group metal compounds.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Materials: The particles are enveloped by or embedded in: surfactants, tensides, amino acids, lipids, nucleotides, carbohydrates, natural or synthetic polymers, their derivatives, activated carbon, silicon compounds and/or noble metals.

TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Method: Micro particles and particles of specific structure are contained in the medium. The particles are antibodies, their fragments, specific agonists binding receptors e.g. zytokines, lymphokines, endothelines or their antagonists, other specific peptides or proteins, receptors, enzymes, enzyme substrates, nucleotides, ribonucleic acids, deoxyribonucleic acids, carbohydrates or lipoproteins. Their binding constants lie in the range 10 to the power 5- 10 to the power 15 l/mol.
TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred Features: The field frequency is 1 MHz-100 GHz, preferably 1Hz - 10 GHz. The alternating field is superimposed on a steady magnetic field. The separation process is continuous or intermittent. Alteration of the medium, varies behavior of particles in the alternating field. The particles contain ferromagnetic-, ferrimagnetic- or paramagnetic substances. The magnetic particles to be separated have a size of 0.1 nm-100 micro-m, preferably 1 nm-10 nm. The frequency of the field is at least 100 Hz. A matrix intensifying the field is included. Permanent- or electromagnets are used, and are moved relative to the fluid. Conductors, especially **coils** are employed in the separator, which is inserted in a split, soft-magnetic core. The separator has an internal protective layer; solvents are resisted. The continuous separator has two outlets.

L41 ANSWER 6 OF 14 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 2001-032881 [05] WPIX
DNN N2001-025633 DNC C2001-010243
TI Apparatus for modulating physical or chemical parameters by means of a rotation-free vector potential comprises a toroidal **coil** or very long solenoid **coil** operating above the boiling point of liquid helium.
DC D16 S03 V02
IN KERN, R M
PA (ARCO-N) ARCONIA GMBH
CYC 1
PI DE 19917872 A1 20001026 (200105)* 6p H01F013-00 <--
ADT DE 19917872 A1 DE 1999-19917872 19990420
PRAI DE 1999-19917872 19990420
IC ICM **H01F013-00**
ICS B01J019-08; C12M001-42; C12N013-00; G01N027-00
AB DE 19917872 A UPAB: 20010124
NOVELTY - Apparatus for modulating physical or chemical parameters by means of a rotation-free vector potential comprises a toroidal **coil** or very long solenoid **coil** through which current is passed at a temperature above the boiling point of liquid helium, is new.
USE - The apparatus is useful for generating a rapidly varying vector potential useful for transmitting information through a medium that is impermeable to electromagnetic radiation or, in conjunction with a synchronous detector, for analyzing the structure of metals or crystal structures; for accelerating switching in a biological computer by increasing the reactivity of biochemical components; or for inducing the multiplication of microorganisms by increasing biochemical reactivity.
ADVANTAGE - The high cost involved in cooling a Josephson element with liquid helium is avoided (compare US4432098).
DESCRIPTION OF DRAWING(S) - The figure shows an apparatus comprising a first toroidal **coil** through which current is passed to generate a rotation-free vector potential (shown by arrows), and a second toroidal **coil** for detecting the vector potential.
Dwg.1/2
FS CPI EPI
FA AB; GI

MC CPI: **D05-H09**
EPI: S03-E02X; V02-E02X

L41 ANSWER 7 OF 14 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 2000-611370 [58] WPIX
DNN N2000-452769 DNC C2000-182878
TI Diagnostic card device for detecting and quantitating an analyte in liquid sample, has **biosensor** having surface bound molecules of charged **coil**-forming peptides capable of binding with oppositely charged peptides.
DC **B04 D16** J03 J04 S03
IN CHAO, H; MCELROY, J; SEGAL, D; WONG, W Y
PA (HELI-N) HELIX BIOPHARMA CORP
CYC 90
PI WO 2000052457 A1 20000908 (200058)* EN 80p G01N027-327
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
AU 2000056468 A 20000921 (200065) G01N027-327
US 6300141 B1 20011009 (200162) G01N033-543
ADT WO 2000052457 A1 WO 2000-CA206 20000302; AU 2000056468 A AU 2000-56468 20000302; US 6300141 B1 Provisional US 1999-122546P 19990302, US 2000-518178 20000302
FDT AU 2000056468 A Based on WO 200052457
PRAI US 1999-122546P 19990302; US 2000-518178 20000302
IC ICM G01N027-327; G01N033-543
ICS C12M001-34; C25D021-12; G01N027-26; G01N033-00; G01N033-532
AB WO 200052457 A UPAB: 20001114
NOVELTY - The device has card substrate (20) having a sample introduction region (12), a **biosensor** (32) and sample-flow pathway (38). The **biosensor** has surface bound molecules of charged **coil**-forming peptides on its detection surface, capable of producing **coiled coil** heterodimer on binding with oppositely charged **coil**-forming peptides.

DETAILED DESCRIPTION - A sample introduction region (12), **biosensors** (32) are formed on a card substrate (20) and are connected through sample flow pathway (38). The analyte dependent electrical signal from the **biosensor** are fed to signal responsive element for storing the signals by the circuitry. The **biosensor** has a detection surface with charged surface bound molecules of **coil**-forming peptides capable of producing stable alpha helical **coiled coil** heterodimer on interaction with oppositely charged **coil**-forming peptide. The **biosensor** generates signal which can be measurably altered while binding the peptides. The sample flow pathway accommodates a conjugate of oppositely charged **coil**-forming peptide and the analyte or its analog in a releasable form into a sample liquid and an analyte binding agent. The sample-introduction region is adapted to be carried through the sample-flow pathway, where the analyte mixes with conjugate and reacts with the binding agent under conditions effective for immobilizing analyte and the bound conjugate.

An INDEPENDENT CLAIM is also included for a diagnosing system that includes a card device and a card reader. The card reader has a slot for introducing the card. The analyte dependent signals from the **biosensor** is read by the reader through the contact leads. A signal responsive element displays or records the read signal.

USE - The diagnostic card device is useful for detecting the presence or amount of an analyte present in a liquid sample which forms an analyte binding agent, an analyte-analyte binding agent pair selected from antigen-antibody, hormone-receptor, drug-receptor, cell-surface antigen-lectin, biotin-avidin, and complementary nucleic acid strands (claimed).

DESCRIPTION OF DRAWING(S) - The figure shows the diagnostic card

device.
Sample introduction region 12
Card substrate 20
Microprocessor 28
Biosensor 32
Analog to digital converter 35
Voltage modulator 36
Sample-flow pathway 38
Dwg.2/55
FS CPI EPI
FA AB; GI; DCN
MC CPI: B04-C01; B04-E01; B04-G01; B04-J01; B04-L01; B05-A03B; B06-F03; B11-C07A; B11-C07A7; B11-C08; B11-C08B; B11-C08E; B12-K04; B12-K04A; B12-K04E; B12-K04F; D05-H09; D05-H10; J03-B; J04-B01
EPI: S03-E03C; S03-E14H4
TECH UPTX: 20001114
TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred Arrangement: A background **biosensor** and a control sample-flow pathway are also provided. The control sample-flow pathway which does not contain the conjugate connects the sample introduction region to the background control **biosensor**. The positive control **biosensor** is also provided and is not connected to the sample application port which contains the conjugate of oppositely charged **coil**-forming peptides to the limitation amount of maximum expected response. Alternatively, separate **biosensors**, separate sample-flow pathways are provided for analyzing multiple analytes simultaneously. The sample-flow pathways are connected to respective sample introduction regions through single ports. The sample introduction regions, the sample-flow pathways and the **biosensors** are micro fabricated on a single substrate. The sample flow pathway includes a mixing zone that stores the conjugate releasably and reaction zone that stores the binding agent in immobilized form. The detection surface of the **biosensor** has a monolayer of hydrocarbon chains anchored at their ends and charged peptides with covalent bonds. Current flow is mediated by redox ion species, supplied from a chamber in the aqueous solution that contacts the monolayer and is measurably reduced on binding of the two peptides forming the heterodimer. The current flow is generated as the analyte perturbs the monolayer so that the redox species contacts the detection surface for donating/accepting electrons. The current flow across the detection surface is measured in terms of voltage generated by the voltage modulator (36) and output as a digital signal by an analog to digital (A/D) converter (35) to a microprocessor (28). The values are displayed in a linear color liquid crystal display (LCD) device (14) on response to the output of the voltage modulator or the values are recorded in a **magnetic** recording medium. The results can also be stored in non-contact type storage medium. The **biosensor** has a detector with an electrode having a gold detection surface and a monolayer composed of 8-22 carbon atom chains attached at their ends to the detection surface by a thiol linkage. The analyte-binding agent is a disaccharide.

L41 ANSWER 8 OF 14 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD.
AN 2000-611369 [58] WPIX
DNN N2000-452768 DNC C2000-182877
TI Detecting or quantitating an analyte present in liquid sample involves reacting sample with reagent capable of generating **coil**-forming peptide in solution form and detecting by contacting the peptide with **biosensor**.
DC **B04 D16** J03 J04 S03
IN CHAO, H; MCELROY, J; SEGAL, D; WONG, W Y
PA (HELI-N) HELIX BIOPHARMA CORP
CYC 89
PI WO 2000052456 A1 20000908 (200058)* EN 49p G01N027-327
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS

LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

AU 2000028985 A 20000921 (200065) G01N027-327

ADT WO 2000052456 A1 WO 2000-CA205 20000302; AU 2000028985 A AU 2000-28985 20000302

FDT AU 2000028985 A Based on WO 200052456

PRAI US 1999-122548P 19990302

IC ICM G01N027-327
ICS C12Q001-00; G01N033-532; G01N033-543

AB WO 200052456 A UPAB: 20001114
NOVELTY - An analyte containing sample is reacted with reagents capable of forming a first **coil**-forming peptide in solution and the peptide contacted with a **biosensor** whose detection surface has surface bound molecules of a second oppositely charged **coil**-forming peptide forming a stable alpha -helical **coiled-coil** heterodimer on the detection surface and the change in the **biosensor** signal is measured.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a diagnostic device (I) for use in detecting or quantitating an analyte present in a liquid sample comprising:

(a) a reaction reagent effective to react with analyte to generate a solution form of a first **coil**-forming peptide having a selected charge and being capable of interacting with a second, oppositely charged **coil**-forming peptide to form a stable alpha -helical **coiled coil** heterodimer;

(b) a **biosensor** having a detection surface with surface bound molecules of a charged, **coil**-forming peptide capable of interacting with the first oppositely charged **coil**-forming peptide to form a stable alpha -helical **coiled coil** heterodimer by binding and to measurably alter a signal generated by the **biosensor**; and

(c) a detector for measuring the change in a signal generated by the **biosensor**, in response to conjugate binding to the first charged, **coil**-forming peptide.

USE - The method is useful for detecting or quantitating an analyte present in a liquid sample. (I) is useful for detecting the presence or amount in the sample of an analyte which forms with analyte binding agent, an analyte-analyte binding agent pair selected from antigen-antibody, hormone-receptor, drug-receptor, cell-surface antigen-lectin, biotin-avidin, and complementary nucleic acid strands (claimed).

DESCRIPTION OF DRAWING(S) - The figures show HSP-1 before and after the binding of an HSP2-PAK conjugate.

7A/7B/16

FS CPI EPI

FA AB; GI; DCN

MC CPI: B04-C01; B04-E01; B04-G01; B04-J01; B04-L01; B05-A03B; B06-F03; B11-C07A; B11-C07A7; B11-C08; B11-C08B; B11-C08E; B12-K04; B12-K04A; B12-K04E; B12-K04F; D05-H09; D05-H10; J03-B; J04-B01
EPI: S03-E03C; S03-E14H4

TECH UPTX: 20001114
TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred Arrangement: The device includes a substrate having a sample-introduction region, **biosensor** and a sample-flow pathway between the sample introduction region and the **biosensor**. The reaction reagent includes a conjugate of the first **coil**-forming peptide and the analyte or its analog, in a form releasable into the sample liquid and the analyte-binding agent, disposed in the sample-flow pathway. The sample-flow pathway includes a mixing zone containing the conjugate in releasable form and a reaction zone containing the analyte-binding agent in immobilized form. A background control **biosensor** and a control sample-flow pathway connect the sample introduction region to the background control **biosensor** and the control sample-flow pathway does not include the conjugate. The sample introduction region is a single port communicating with each of the sample-flow pathways. Alternatively, separate **biosensors**, separate sample-flow pathways are provided for analyzing multiple analytes. The first **coil**-forming peptide

is a positively or negatively charged leucine-zipper peptide and the second **coil**-forming peptide is a leucine-zipper peptide of the opposite charge. The **biosensor** has a detector with an electrode having a gold detection surface and a monolayer composed of 8-22 carbon atom chains attached at the ends to the detection surface by a thiol linkage at a molecular density of about 3-5 chains/nm2. The **biosensor** may be a gravimetric **biosensor** that includes a piezoelectric crystal detection surface having the oppositely charged **coil**-forming peptide anchored to it and a surface acoustic **wave** (SAW) oscillator which vibrates the crystal and the shift in SAW frequency, velocity or the resonance frequency of SAW, during binding of the **coil**-forming peptides is detected by a **sensor**.
Or the **biosensor** is a surface plasmon resonance (SPR) **biosensor** that includes a transparent dielectric detection surface such as glass coated with the thin metal layer such as Cr, Ti, Au forming a plasmon resonance interface, where the oppositely charged **coil**-forming peptide is anchored. The binding detector excites the surface plasmon with a resonance angle, depending on the optical properties of detector surface and measures the shift in plasmon angle during binding using a **photosensor**. Preferably, the **biosensor** is an optical **biosensor** that includes a detection surface with a monolayer composed of hydrocarbon chains anchored at their ends to the detection surface and oppositely charged **coil**-forming peptide also anchored to the detection surface. A light source irradiates the surface and the change in the optical characteristics produced during binding are sensed by the detector.
Preferred Method: The analyte is a ligand and reacting the liquid with an analyte-reaction reagent involves mixing the analyte with the conjugate of the charged **coil**-forming peptide and the analyte or its analog, reacting the analyte and the conjugate with an immobilized analyte-binding anti-ligand agent such that the amount of unbound conjugate generated is inversely proportional to the amount of analyte. The mixing of analyte with the conjugate is performed under conditions such that the conjugate is displaced from an immobilized analyte-binding anti-ligand agent by the presence of the analyte. The analyte is an enzyme and the reaction is effective to enzymatically release the oppositely charged **coil**-forming peptide in soluble form in the presence of analyte. The binding of first peptide to the second peptide to form a heterodimer is effective to measurably alter current flow across the monolayer mediated by redox ion species in an aqueous solution in contact with the monolayer, relative to electron flow observed in the presence of the second peptide alone. The redox ion species may have the same charge as that of second **coil**-forming peptide and the binding of first peptide to second peptide is effective to enhance redox ion-mediated current flow across the monolayer. The redox ion species is Fe(CN)63- if the charge of the first **coil**-forming peptide is negative and Ru(NH3)63+, if the charge of the first **coil**-forming peptide is positive. Alternatively, the redox ion species may have a charge opposite to that of the second **coil**-forming peptide, where the binding of the first peptide to the second peptide is effective to reduce ion-mediated current flow across monolayer. Examples are Fe(CN)63-, if the charge of the first **coil**-forming peptide is positive, and Ru(NH3)63+, if the charge of first **coil**-forming peptide is negative.

L41 ANSWER 9 OF 14 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1997-290337 [27] WPIX
DNN N1997-240230
TI Cylindrical **coil** with turns extending along axis - has individual turns formed by two parallel wires, and contains partial turns.
DC X12
IN **PETERS, O**
PA (PETE-I) PETERS O
CYC 1
PI DE 19543573 A1 19970528 (199727)* 5p H01F005-00
ADT DE 19543573 A1 DE 1995-19543573 19951122
PRAI DE 1995-19543573 19951122

IC ICM H01F005-00
ICS H01F006-00
AB DE 19543573 A UPAB: 19970709
The turn layers extend along an axis. The individual turns consist of two parallel wires (24,25), and there are partial turns (13-15) are available. The coiling direction of two adjacent turns runs in the opposite sense around the X axis.

Preferably the reversal of the coiling direction between the two adjacent partial turns in carried out by reversing the peripheral loops (16,17). Typically there in an odd number of partial turns, preferably three. Around the partial turns there may be located several annular coils (21-23) with opposite coiling directions.

USE/ADVANTAGE - For coils generating complicated fields, such as for superconductors. Has simple design and variations, permitting multiple field structures.

Dwg.2/5
FS EPI
FA AB; GI
MC EPI: X12-C05

L41 ANSWER 10 OF 14 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1995-053734 [08] WPIX
DNN N1995-042201
TI Flame detection circuit for burner electronic ignition - evaluates signal from ignition **coil** primary winding after disconnection of charging current supplied during flame detection phase.
DC Q54 S02 X22
IN **PETERS, O**; TEUTSCH, D
PA (BERU-N) BERU RUPRECHT GMBH & CO; (BERU-N) BERU WERK RUPRECHT GMBH CO A; (BERU-N) BERU AG
CYC 7
PI EP 635638 A2 19950125 (199508)* DE 10p F02P017-00
R: DE ES FR GB IT SE
DE 4324863 A1 19950126 (199509) 10p F23N005-12
EP 635638 A3 19950621 (199611) F02P017-00
US 5599180 A 19970204 (199711) 10p F23N005-12
DE 4324863 C2 19970410 (199719) 9p F23N005-12
EP 635638 B1 19981125 (199851) DE F02P017-00
R: DE ES FR GB IT SE
DE 59407327 G 19990107 (199907) F02P017-00
ES 2125373 T3 19990301 (199916) F02P017-00
ADT EP 635638 A2 EP 1994-109218 19940615; DE 4324863 A1 DE 1993-4324863 19930723; EP 635638 A3 EP 1994-109218 19940615; US 5599180 A US 1994-279647 19940725; DE 4324863 C2 DE 1993-4324863 19930723; EP 635638 B1 EP 1994-109218 19940615; DE 59407327 G DE 1994-507327 19940615, EP 1994-109218 19940615; ES 2125373 T3 EP 1994-109218 19940615
FDT DE 59407327 G Based on EP 635638; ES 2125373 T3 Based on EP 635638
PRAI DE 1993-4324863 19930723
REP No-SR.Pub; DE 4130013; US 4167767; US 4557236; WO 9220912
IC ICM F02P017-00; F23N005-12
ICS F02P015-00; F23Q005-00
AB EP 635638 A UPAB: 19950301
The flame detection circuit has a control stage, controlling a power transistor (Tr2) in the primary current circuit of the burner ignition coil (ZS), for supplying the latter with a charging current, provided by a current supply. The charging current flowing through the primary winding is limited in the flame detection phase to a value which is below that required for an ignition spark, with evaluation of the signal obtained from the primary winding when the charging current is disconnected.

The evaluated signal only exhibits pulse peaks when no flame is present and is used to control a flame indication display.

ADVANTAGE - Reliable flame detection with min. circuit complexity.

Dwg.1/5
FS EPI GMPI
FA AB; GI
MC EPI: S02-J02E; X22-A01D

ABEQ US 5599180 A UPAB: 19970313
A flame detection circuit for a burner having a transistor coil ignition system that includes a trigger stage which turns off a power transistor located in a power circuit of a primary winding of an ignition coil upon a predetermined current level in the power circuit of the primary winding being attained, wherein a secondary winding of the ignition coil is connected across a spark gap and the predetermined current level is determined such that the voltage induced in the secondary winding upon turning off the power transistor generates an ignition spark over the spark gap, comprising:
current control means located in the trigger stage for restricting the current level flowing in the power circuit of the primary winding of the ignition coil to a current level such that the voltage induced in the secondary winding of the ignition coil when the power transistor is turned off results in a spark discharge only if a flame exists in the burner, and
analysis means for receiving a signal that appears across the primary winding of the ignition coil after the power transistor has been turned off, for analyzing said signal to determine whether a flame exists in the burner, and for transforming said signal into a corresponding output signal.
Dwg.1/5

L41 ANSWER 11 OF 14 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1991-282175 [39] WPIX
DNN N1991-215727
TI Electrically heatable ignition electrode - has heating **coil** embedded in ceramic material filling space between it and surrounding sleeve.
DC X22
IN FOERSTER, R; MOEHLE, K; **PETERS, O K**
PA (BERU-N) BERU WERK RUPRECHT GMBH CO A
CYC 8
PI DE 4007190 C 19910926 (199139)*
EP 452645 A 19911023 (199143)
R: AT ES FR GB IT NL SE
ADT DE 4007190 C DE 1990-4007190 19900307; EP 452645 A EP 1991-103036 19910228
PRAI DE 1990-4007190 19900307
REP GB 2185529
IC H01T013-18
AB DE 4007190 C UPAB: 19930928
An electrically heated spark plug has the ceramic insulating surround (2) for the central electrode (5) wound with an electric heating coil (4) and covered with an ceramic sleeve (7). The outer sleeve is heated sufficiently to prevent build-up of carbon, and of unburnt fuel, enabling an efficient burn to be achieved.
The coil is made from oxide insulated wire embedded in a ceramic paste. One end of the wire is welded to the metal outer body (1) of the spark plug and the other end taken through a tube to a separate electrode tag (3) on the outside of the plug. The free end of the central electrode has the space between the outer ceramic sleeve and the inner ceramic insulator filled with a glass paste.
ADVANTAGE - Rapid warm-up, fewer ignition problems, no discharge risk to heater coil.
1/3
FS EPI
FA AB; GI
MC EPI: X22-A01E1

L41 ANSWER 12 OF 14 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1990-273904 [36] WPIX
CR 1990-107505 [14]; 1990-114868 [15]
DNN N1990-211783 DNC C1990-118466
TI Mfr. of **coil** assembly for metal detector - with **coils** wound on hollow frame, encapsulated by plastics and metal composite coating.
DC B07 D14 S03 V02

IN MORAN, J M
PA (BARK-N) BARKLEY & DEXTER LA
CYC 1
PI US 4949452 A 19900821 (199036)*
ADT US 4949452 A US 1989-431880 19891106
PRAI US 1987-56241 19870601; US 1989-357781 19890530; US 1989-431880 19891106
IC **H01F007-06**
AB US 4949452 A UPAB: 19940103
The method for making search **coil** assemblies for metal detectors comprises providing a frame of non-metallic material, the frame defining an aperture of a selected size for inspection of a selected product of a given size. **Coils** of electrically conductive strands are wound about the frame, with internal surfaces of the frame shielded. A first plastics coating is applied in liquid form to external surfaces of the frame and the **coils** to imbed the **coils** in the first plastics coating.

A cavity is formed in one end of the assembly and the first plastics coating allowed to cure. The cavity is covered with a plate and metal is applied in fluid form to the surface of the first plastics coating other than the internal plastic surfaces of the cavity. The metal is permitted to harden, to encase the first plastics coating in a metal layer. A second plastics coating is applied in liquid form to the surface of the metal layer to encase the metal layer in the second plastics coating.

USE - For making a **coil** assembly for a metal detector of the type used for detecting metal fragments in foodstuffs and pharmaceuticals. @(8pp Dwg.No.6/7)@
6/7
FS CPI EPI
FA AB; GI; DCN
MC CPI: **B11-C08C**; **B12-K04E**; D03-K03; D03-K04; **D05-H09**
EPI: S03-C02B; V02-H01A

L41 ANSWER 13 OF 14 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1990-172167 [23] WPIX
DNN N1990-133866 DNC C1990-075033
TI Electromagnetic treatment of medicinal liquids - using specified currents and magnetic field intensities.
DC B07 J03 S05 V02
IN KASTL, H; KOHL, B
PA (MAGN-N) MAGNET ACTIV VERTRI
CYC 1
PI DE 3839852 A 19900531 (199023)*
ADT DE 3839852 A DE 1988-3839852 19881125
PRAI DE 1988-3839852 19881125
IC A61K041-00; **H01F007-06**
AB DE 3839852 A UPAB: 19930928
An electromagnetic treatment has been devised for electrically conductive liquids with conductivities of over 40 nS, specially for carrier liquids of medicinal preparations or solutions. Electrodes are used to produce in the liquid a current of 5-100 muA. Between the electrodes, a monopolar magnetic field of at least 0.01 Tesla is maintained.

Two gold electrodes (G1,G2) are arranged in the pipe(s) at a distance of 15 cm. The cross-section of the pipe is 1 sq. cm. The magnets (L1-L6) have induction **coils** (I1-I6). The magnetic field intensity should be kept below 0.7 Tesla, because above this figure, damage would be inflicted on enzymes.

ADVANTAGE - The treatment has a beneficial effect on the action of the medicine.
1/1
FS CPI EPI
FA AB; GI
MC CPI: **B11-C09**; B12-M07; J03-B
EPI: S05-X; V02-E02

L41 ANSWER 14 OF 14 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1987-038225 [06] WPIX
DNN N1987-029092 DNC C1987-016044
TI Iontophoretic **device** for delivering kojic acid under skin - comprising impregnated working electrode, dispersive electrode and oscillator.
DC B07 P34 S05
IN MASAKI, K
PA (HAYB) HAYASHIBARA KEN
CYC 9
PI DE 3624360 A 19870205 (198706)* 8p
GB 2178962 A 19870225 (198708)
FR 2584932 A 19870123 (198709)
JP 62022662 A 19870130 (198710)
BR 8603211 A 19870317 (198721)
US 4689039 A 19870825 (198736) 7p
GB 2178962 B 19890719 (198929)
CA 1291793 C 19911105 (199151)
KR 9305051 B1 19930615 (199424) A61N001-32
ADT DE 3624360 A DE 1986-3624360 19860718; GB 2178962 A GB 1986-17443 19860717; FR 2584932 A FR 1986-10154 19860711; JP 62022662 A JP 1985-160900 19850719; US 4689039 A US 1986-881117 19860701; KR 9305051 B1 KR 1986-5530 19860709
PRAI JP 1985-160900 19850719
IC **A61K001-32**; A61K031-35; A61N001-32; A61N031-35; C07D307-62; C07D309-40; H03N003-28
AB DE 3624360 A UPAB: 19930922
Electrotherapeutic appts. for iontophoresis comprises a first electrode which can contain a soln. of kojic acid (I; 5-hydroxy-2-hydroxymethyl-gamma-pyrone) and a supporting electrolyte, and serves as the active electrode. A second electrode serves as dispersive electrode and an oscillator generates a low frequency potential, the output from which is coupled to the electrodes such that the potential on the active electrode is less than that on the second.

Pref. the supporting electrolyte is Vitamin C and the concn. of (I) is 0.01-5, esp. 0.05-0.5,wt.-vol.%.

USE/ADVANTAGE - This appts. is esp. used to deliver (I) beneath the skin, esp. to treat abnormal skin pigmentation such as chloasma or melasma.

6/7
FS CPI EPI GMPI
FA AB; DCN
MC CPI: B07-A03; B11-C04; B12-A07
EPI: S05-A02; S05-A04; S05-J
ABEQ GB 2178962 B UPAB: 19930922
An electrotherapeutic apparatus for iontophoresis of kojic acid subcutaneously comprising: (a) a first electrode means carrying both a solution of kojic acid and a supporting electrolyte and arranged to engage a patient's skin bringing the kojic acid into contact with the skin so that iontophoresis causes kojic acid ions to permeate subcutaneously; (b) second electrode means arranged to act as the dispersive electrode in iontophoresis; and (c) an oscillator means for generating a low-frequency voltage, said oscillator means having its output connected to the first and second electrode means such that the potential at the first electrode means is lower than that at the second electrode means.
ABEQ US 4689039 A UPAB: 19930922
Electrotherapeutic appts. for iontophoresis comprises (a) a first active electrode bearing a soln. of kojic acid (5-oxy-2-oxymethyl-gamma-pyrone) and a supporting electrode; (b) a second dispersive electrode; and (c) an oscillator generating a low frequency voltage and connected to the electrode such that (A) is at lower potential than (B).

Pref. the supporting electrolyte is vitamin C; kojic acid concn. is 0.01-5 w/v%; (C) is a blocking oscillator producing a train of biphasic pulses; and (A) is a moist pad active electrode comprising ion exchange material.

USE - For melanism therapy (freckle removal) by efficient kojic acid

iontophoresis.

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FILE COVERS 1907 - 21 Dec 2001 VOL 135 ISS 26
FILE LAST UPDATED: 20 Dec 2001 (20011220/ED)

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=> d all tot

L104 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2001 ACS
AN 2001:396778 HCAPLUS
DN 134:371543
TI Method and device for the treatment of fluids
IN **Reichwein, Dietrich; Peters, Olaf**
PA Austria
SO PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DT Patent
LA German
IC ICM C02F001-00
CC 61-5 (Water)
Section cross-reference(s): 50, 51
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001038226	A2	20010531	WO 2000-DE4132	20001122
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	DE 10005907	A1	20010613	DE 2000-10005907	20000210
PRAI	DE 1999-19956257	A	19991123		

DE 2000-10005907 A 20000210

AB A device and method are disclosed, with which water can be treated, in particular, with which their properties can be improved. The device and method use a **Klein**-type field **coil**, through which the water to be treated is fed. According to the invention, at least one **Klein**-type double-**coil** is arranged around a through-flow pipe, through which the water to be treated is passed.

ST **magnetic** water treatment **Klein** type double **coil**; cooling water combustion engine **magnetic** water treatment; drinking water treatment **magnetic**; surface water remediation **magnetic** groundwater; fuel **magnetic** water treatment propellant

IT **Electromagnets**
(**coils**; method and device for **magnetic** treatment of process and natural waters using **Klein**-type double-**coil**)

IT Water purification
(disinfection; method and device for **magnetic** treatment of process and natural waters using **Klein**-type double-**coil**)

IT Water purification
(groundwater remediation; method and device for **magnetic** treatment of process and natural waters using **Klein**-type double-**coil**)

IT **Electric coils**
(**magnet**; method and device for **magnetic** treatment of process and natural waters using **Klein**-type double-**coil**)

IT Wastewater treatment
Water purification
(**magnetic**; method and device for **magnetic** treatment of process and natural waters using **Klein**-type double-**coil**)

IT Fuels
(method and device for **magnetic** treatment of process and natural waters using **Klein**-type double-**coil**)

IT Cooling water
(of combustion engines; treatment of; method and device for **magnetic** treatment of process and natural waters using **Klein**-type double-**coil**)

IT Drinking waters
Surface waters
(purifn. of; method and device for **magnetic** treatment of process and natural waters using **Klein**-type double-**coil**)

IT Propellants (fuels)
(removal of; method and device for **magnetic** treatment of process and natural waters using **Klein**-type double-**coil**)

IT Algae
Bacteria (Eubacteria)
Parasite
Virus
(removal/prevention of growth of; method and device for **magnetic** treatment of process and natural waters using **Klein**-type double-**coil**)

L104 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2001 ACS
AN 2001:391903 HCAPLUS
TI Device and method for minimising **electromagnetic** emissions of technical emitters
IN **Reichwein, Dietrich**
PA Austria
SO PCT Int. Appl.
CODEN: PIXXD2
DT Patent

LA German
IC ICM H05K009-00
ICS A61N001-16
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001039567	A1	20010531	WO 2000-EP10325	20001020

W: AE, AG, AL, AU, BA, BB, BG, BR, BZ, CA, CN, CR, CU, CZ, DM, DZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MD, MG, MK, MN, MX, MZ, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, TZ, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

DE 10005905	A1	20010531	DE 2000-10005905	20000210
PRAI DE 1999-19955974	A	19991119		
DE 2000-10005905	A	20000210		

AB The present invention relates to a device and a method for minimising **electromagnetic** emissions of technical emitters. Methods and devices of the kind are required for minimising potential eddy portions of **electromagnetic** alternating fields emanating from technical appliances.
RE.CNT 5
RE
(1) Alpini Edilio Livio; WO 0074461 A 2000 HCAPLUS
(2) Matsushita Electric Ind Co Ltd; EP 0880311 A 1998
(3) Nikola Tesla; US 685957 A
(4) Telefunken Systemtechnik; DE 3938238 A 1991
(5) Triple Trian Beteiligungs Gmbh; DE 19850238 A 2000

L104 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2001 ACS
AN 2000:260126 HCAPLUS
DN 132:266889
TI Integrated multilayered microfluidic devices and methods for making the same
IN Burdon, Jeremy W.; Huang, Rong-Fong; Wilcox, David; Naclerio, Nicholas J.; Briscoe, Cynthia Ann Gorsuch; Grodzinski, Piotr; Yu, Huinan; Marrero, Robert; Gallagher, Sean Ross; Chan, Yuk-Tong; Foley, Barbara Mcneil; Dai, Xunhu
PA Motorola Inc., USA
SO PCT Int. Appl., 116 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM B01J019-00
ICS F04B019-00; B32B018-00
CC 47-3 (Apparatus and Plant Equipment)
Section cross-reference(s): **9**, 21, 34, 57, 76
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000021659	A1	20000420	WO 1999-US23324	19991007

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9964184	A1	20000501	AU 1999-64184	19991007
EP 1123157	A1	20010816	EP 1999-951826	19991007

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

PRAI US 1998-103701 P 19981009
US 1999-235081 A 19990121
US 1999-337086 A 19990621
WO 1999-US23324 W 19991007

AB A multilayered microfluidic device is described suitable for **combinatorial** solid-phase synthesis, having a substantially monolithic structure formed by sintering together a plurality of green-sheet layers. The substantially monolithic structure has an inlet port for receiving fluid, an outlet port for releasing fluid, and an interconnection between the inlet port and the outlet port. The monolithic structure may also include a variety of components to enable useful interaction with the fluid, such as elec. conductive pathways, heaters, fluid **sensors**, fluid motion transducers, and optically transmissive portions. The components are preferably fabricated using thick-film or green-sheet technol. and are preferably co-fired with and sintered to the green-sheet layers to become integral with the substantially monolithic structure. By using an adhesive to bind the green-sheet layers together, the multilayered microfluidic device may be fabricated without the application of high pressures. Selection of an adhesive with a polymer that decomps. at a higher temp. than the binder present in the green-sheet layers promotes stability of the interfaces during the firing process and promotes void-free sintering within the interfacial regions.

ST reaction app integrated multilayered microfluidic; microreactor integrated multilayered microfluidic; **combinatorial** chem microfluidic reaction app

IT Acrylic polymers, uses
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(binders; integrated multilayered microfluidic devices for **combinatorial** chem.)

IT **Sensors**
(capacitive, inductive, pH, resistive; integrated multilayered microfluidic devices for **combinatorial** chem.)

IT Capacitors
Catalysts
Ceramics
Combinatorial chemistry
Control apparatus
Electric coils
Electric heaters
Electromagnets
Glass ceramics
Microwave
Optical fibers
Organic synthesis
Resistors
Solid phase synthesis
Surface acoustic **wave**
Temperature **sensors**
Thermoelectric devices
Transparent materials
(integrated multilayered microfluidic devices for **combinatorial** chem.)

IT Ferrites
Glass, uses
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(integrated multilayered microfluidic devices for **combinatorial** chem.)

IT Micromachines
(microelectromech. systems; integrated multilayered microfluidic devices for **combinatorial** chem.)

IT Electrohydrodynamics
Electroosmosis
Piezoelectric apparatus

(pumps; integrated multilayered microfluidic devices for **combinatorial** chem.)

IT Laboratory ware
(reaction vessels; integrated multilayered microfluidic devices for **combinatorial** chem.)

IT 24937-78-8, Ethylene-vinylacetate copolymer 26780-20-1, Ethylene-vinylacrylate copolymer
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(binders; integrated multilayered microfluidic devices for **combinatorial** chem.)

IT 12626-81-2, PZT 53322-75-1, Magnesium fluoride silicate (Mg3F2(SiO4))
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(integrated multilayered microfluidic devices for **combinatorial** chem.)

RE.CNT 4
RE
(1) Eastman Kodak Co; EP 0870541 A 1998 HCAPLUS
(2) Ngk Insulators Ltd; EP 0649008 A 1995 HCAPLUS
(3) Ngk Insulators Ltd; EP 0744389 A 1996 HCAPLUS
(4) Tominaga, T; US 5089071 A 1992

L104 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2001 ACS
AN 2000:33548 HCAPLUS
DN 132:102197
TI Fabrication and use of integrated **miniaturized** micro-NMR spectrometer for sample processing and analysis of liquid samples
IN Freeman, Dominique M.; Swedberg, Sally A.
PA Hewlett-Packard Co., USA
SO Ger. Offen., 52 pp.
CODEN: GWXXBX
DT Patent
LA German
IC G01R033-30
CC 80-2 (Organic Analytical Chemistry)
Section cross-reference(s): 77, 79
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19927976	A1	20000113	DE 1999-19927976	19990618
	US 6194900	B1	20010227	US 1998-100495	19980619
PRAI	US 1998-100495	A	19980619		

AB A **miniaturized** total anal. system for liq. samples was designed as a micro-NMR detecting unit. The **microsensor** consists of: (1) a micromachined support with an upper planar surface on which is located a microchannel, (2) a cover layer located above the first (top) planar surface, in which the cover layer in combination with a first microchannel forms a sample prepn. compartment, (3) an inlet and and outlet in communication with the sample prepn. compartment, is incorporated, in which the inlet and outlet serve to lead fluids from an external source through the sample prepn. compartment, and (4) an NMR-detecting compartment which contains a high-frequency NMR microcoil and which is in fluid communication downstream from the sample prepn. compartment.

ST integrated **miniaturized** NMR **sensor** liq analysis; micromachined NMR microspectrometer liq analysis

IT **Microsensors**
(NMR-based; fabrication and use of integrated **miniaturized** micro-NMR spectrometer for sample processing and anal. of liq. samples)

IT **Electromagnets**
(coils, microcoils; fabrication and use of integrated **miniaturized** micro-NMR spectrometer for sample processing and anal. of liq. samples)

IT Micromachining
(fabrication and use of integrated **miniaturized** micro-NMR spectrometer for sample processing and anal. of liq. samples)

IT **Electric coils**
(magnet, microcoils; fabrication and use of integrated **miniaturized** micro-NMR spectrometer for sample processing and anal. of liq. samples)
IT NMR spectrometers
(microspectrometers; fabrication and use of integrated **miniaturized** micro-NMR spectrometer for sample processing and anal. of liq. samples)

=> d his

(FILE 'HOME' ENTERED AT 06:24:30 ON 21 DEC 2001)
DEL HIS

FILE 'WPIX' ENTERED AT 06:24:56 ON 21 DEC 2001
E REICHWEIN D/AU
L1 6 S E3,E4
E PETERS O/AU
L2 24 S E3-E6
L3 28 S L1,L2
L4 6 S L3 AND (BIOLOGICAL OR COIL)/TI
L5 27 S (M423(S)M424(S)M740(S)M750(S)N102(S)N136(S)N137(S)Q233)/M0,M1
L6 147 S (Q233(S)R502(S)R515(S)R521(S)R528(S)R639)/M0,M1,M2,M3,M4,M5,M
L7 123 S L6 (S)(M904 OR M905)/M0,M1,M2,M3,M4,M5,M6
L8 5 S L5,L6,L7 AND COIL?
L9 3 S L8 AND ?MAGNET?
L10 3 SS L4 AND ?MAGNET?
L11 40 S L4-L6 AND (LONGITUD? OR DIODE OR ZENER OR KLEIN OR DECOD? OR
L12 5 S L11 AND L8,L9,L10
L13 4 S L12 NOT DRINKING WATER
L14 8 S L4,L13
L15 2 S L8-L10,L12 NOT L14
L16 1 S L15 AND BIO PARTICLE
L17 9 S L14,L16
L18 35 S L11 NOT L12-L17
E A61K001/IC,ICM,ICS
L19 5 S E80,E81
L20 2 S L19 AND DEVICE
E H01F/IC,ICM,ICS
E H01F/IC,ICM,ICS
L21 88964 S E3-E5
L22 28574 S L21 AND COIL?
E H01F005/IC,ICM,ICS
L23 1749 S E6-E8
L24 713 S E44-E46
E H02F027/IC,ICM,ICS
E H01F027/IC,ICM,ICS
L25 3678 S E71-E73
L26 30673 S L23-L25,L22
L27 14689 S L26 AND ?MAGNET?
L28 787 S L26 AND ?SENSOR?
L29 563 S L26 AND G01N/IC,ICM,ICS
L30 1 S L26 AND C12Q/IC,ICM,ICS
E G01N033/IC,ICM,ICS
L31 17 S E3-E5 AND L26
E G01N027/IC,ICM,ICS
L32 112 S E3-E5 AND L26
E G01N027-72/IC,ICM,ICS
L33 45 S E3-E5 AND L26
L34 70 S L17,L20,L30,L31,L33
L35 4 S L34 AND (B04 OR D16)/DC
L36 52 S L34 AND S03/DC
L37 4 S L26 AND (B12-K04? OR C12-K04? OR D05-H09)/MC
L38 4 S L26 AND (B11-C08? OR C11-C08? OR B11-C09 OR C11-C09)/MC
L39 2 S L26 AND (B04-F? OR C04-F? OR B04-B02? OR C04-B02? OR B04-B03?

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L40           2 S L26 AND Q233/M0,M1,M2,M3,M4,M5,M6
L41          14 S L17,L20,L30,L35,L37-L40
L42           4 S L26 AND A61K/IC,ICM,ICS
L43           9 S L26 AND B?/MC
L44           3 S L26 AND C?/MC
L45        1099 S L26 AND S03-E?/MC
L46          13 S L26 AND S03-E14?/MC
L47           4 S L26 AND S03-E14H?/MC
L48          12 S L43,L44
L49           8 S L48 NOT L41

     FILE 'WPIX' ENTERED AT 07:25:37 ON 21 DEC 2001
L50        1046 S L26 AND LONGITUD?
L51           3 S L26 AND SCALAR?
L52         303 S L26 AND LATERAL?
L53        1300 S L50-L52
L54           9 S L53 AND DIODE
L55           6 S L53 AND ?DIODE
L56           1 S L53 AND DECOD?
L57          25 S L53 AND INTEGRAT?
L58           1 S L53 AND (KLEIN OR ZENER)
L59           1 S L53 AND P N
L60          32 S L54-L59 NOT L41
L61         365 S L26 AND WAVE
L62         364 S L61 NOT L41,L60
L63          10 S L62 AND ?SENSOR?
L64           6 S L26 AND GOLD PLAT?
L65          47 S L26 AND GOLD NOT L41,L60,L64
L66           0 S L65 AND BIO?

     FILE 'HCAPLUS' ENTERED AT 07:35:04 ON 21 DEC 2001
               E REICHWEIN D/AU
L67           2 S E4
               E PETERS O/AU
L68          40 S E3-E7
L69           1 S L67 AND L68
L70           2 S L67,L69
               E ELECTRIC COIL/CT
               E E4+ALL
L71        3934 S E4,E12,E13
               E E15+ALL
L72         696 S L71 AND E8,E6+NT
L73         626 S L71 AND (E17+NT OR E19+NT)
L74        1170 S L72,L73
L75           2 S L74 AND KLEIN
L76           0 S L74 AND ZENER
L77           5 S L74 AND DIODE
L78          26 S L74 AND LONGITUD?
L79           3 S L74 AND SCALAR
L80          89 S L74 AND ?WAVE
L81           9 S L74 AND ?WAVES
L82           0 S L74 AND DECOD?
L83           4 S L80,L81 AND L75,L77,L78,L79
L84           4 S L83 AND WAVE
L85           6 S L70,L84
L86          40 S L75,L77,L78,L79,L81 NOT L85
L87           1 S L86 AND 9/SC
L88          21 S L74 AND  9/SC,SX
L89           2 S L88 AND L75-L87
L90           1 S L89 NOT L87
L91           3 S L70,L90 AND L67-L90
L92           2 S L91 AND ?COIL?
L93           3 S L91 AND ?MAGNET?
L94           3 S  L91-L93
L95          20 S L88 NOT L94
L96          13 S L95 AND ?COIL
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L97          18 S L95 AND ?MAGNET?
L98           6 S L95 AND ?SENSOR?
L99           0 S L95 AND ?DIODE?
L100         44 S L74 AND ?SENSOR?
L101         20 S L95-L99
L102         38 S L100 NOT L101
L103          2 S L102 AND  (COMBINATOR? OR MINIATURIZED)
L104          4 S L94,L103

     FILE 'HCAPLUS' ENTERED AT 07:52:16 ON 21 DEC 2001

     FILE 'BIOSIS' ENTERED AT 07:52:27 ON 21 DEC 2001
               E REICHWEIN D/AU
               E PETERS O/AU
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